

Fertilizer & Pesticide

Best Management Practices

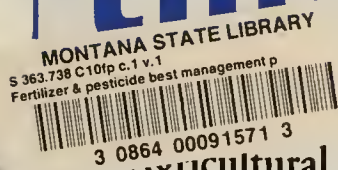
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Agricultural Chemical Ground Water Protection Act An Overview

The *Montana Agricultural Chemical Ground Water Protection Act (MACGWPA)*, enacted in 1989, provides for significant strategies aimed at protecting Montana's ground water from degradation from fertilizer and pesticide management practices. The Act became effective January 1, 1990.

The purpose of the MACGWPA is:

- ✓ To protect ground water, especially current and potential drinking water, from agricultural chemicals such as fertilizers, pesticides and other nutrient sources;
- ✓ To provide for education to prevent the entry of agricultural chemicals into ground water;
- ✓ To promote the proper use of agricultural chemicals which are valuable and necessary tools for agricultural production and disease control; and
- ✓ To encourage proper management of agricultural chemicals that prevents, minimizes or mitigates their presence in ground water.

State Agency Responsibilities

Three state agencies are given responsibility to carry out the provisions of the Act. The Montana Department of Agriculture is charged with developing agricultural chemical management plans to prevent ground water impairment. The Montana Department of Health and Environmental Sciences is responsible for adopting standards for agricultural chemicals in ground water and classifying ground water. Responsibility is shared among the two agencies for monitoring, cleanup, quality control, emergency procedures and administrative civil penalties.

The MSU Extension Service and the Montana Department of Agriculture are responsible for education and training of agricultural chemical applicators and the public to provide for the correct use of agricultural chemicals to prevent entry into ground water. MSU Extension Service is also responsible for providing education about the state's ground water strategy, as outlined in the General Ground Water Management Plan, and the use of best management practices (BMPs).

The General Ground Water Management Plan

The Act directs the Department of Agriculture to develop and implement a *General Management Plan (GMP)* that addresses the state's strategy for manag-

ing ground water impairment due to agricultural chemical practices. The GMP discusses the general condition of Montana's environment, including its ground water resources. It addresses common agricultural chemical uses and cropping practices, and explains how ground water is vulnerable to impairment through nutrient and pesticide management practices. The plan also identifies BMPs and other methods that agricultural chemical users and others should use to prevent such impairment.

The plan provides information on state activities and programs that are designed to protect ground water from nutrient and pesticide impairment. It discusses 12 program elements that form the basis of the plan. They include:

1. State's philosophy and goals toward protecting ground water;
2. Roles and responsibilities of state agencies;
3. Legal authority;
4. Resources (dollars and labor);
5. Basis for assessment and planning;
6. Ground water monitoring;
7. Prevention actions;
8. Response to detections of fertilizers and pesticides;
9. Enforcement mechanisms;
10. Public awareness and participation;
11. Information dissemination; and
12. Records and reporting.

A copy of the Ground Water Management Plan may be obtained by writing to:

Montana Department of Agriculture
Agricultural Sciences Division
Post Office Box 200201
Helena, Montana 59620
or calling 406-444-2944

Specific Management Plans

Montana's Act directs the Department of Agriculture to develop *Specific Management Plans (SMPs)* to deal with agricultural chemical use in certain areas, and adopt rules to ensure compliance with those plans. A SMP will be developed when an agricultural chemical is determined to have a certain potential for

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causing ground water impairment. Such a plan will include the use of BMPs and new technologies outlined in the General Management Plan.

The desired effect of implementing a SMP is to prevent further impairment of ground water from the agricultural chemical and to educate persons dealing with these chemicals on the importance of proper use, storage and disposal of these chemicals.

Criteria for Developing SMPs

Not all agricultural chemicals used in Montana will require a SMP. Such a plan will be developed for agricultural chemicals if any of the following criteria are present:

- ✓ When the level of an agricultural chemical found in ground water is at 50 percent of the standard (Maximum Contaminant Level) or interim numerical standard (Health Advisory Level) established by the Environmental Protection Agency and the Montana Department of Health and Environmental Science,
- ✓ When there is a trend of increased presence of the agricultural chemical in ground water,
- ✓ When the agricultural chemical has been determined to have migrated in the ground water from the point of detection,
- ✓ When the EPA proposes to suspend or cancel registration of an agricultural chemical, prohibits or restricts the chemical's sale or use in the state, or otherwise initiates action against a chemical because of ground water concerns,
- ✓ When EPA's restriction or prohibition of an agricultural chemical will be implemented unless the state develops an adequate management plan, and
- ✓ When agricultural chemicals suspected of having potential to migrate to ground water are being applied on areas underlain by ground water that is vulnerable to impairment.

Setting Priorities

When more than one SMP is required at any one time, the Department of Agriculture will determine the priorities for plan preparation based on local circumstances and available resources. Criteria for prioritizing SMP development may include:

- ✓ Properties and volumes of the agricultural chemicals being used in that area,
- ✓ The concentration level(s) or migration of the chemicals detected in the ground water,
- ✓ The vulnerability of the ground water to impairment from the chemicals,

- ✓ Number of persons or water wells that could be impacted in the area, and

- ✓ The availability of corrective options.

SMP Preparation

When preparing a SMP, the current classification of any ground water included in or affected by the plan will be used. If no classification exists, the Department of Agriculture must use the highest classification of ground water until the ground water is classified by the Montana Department of Health and Environmental Sciences. A SMP must include requirements that address the following considerations:

- ✓ Ground water use,
- ✓ Value and vulnerability of ground water,
- ✓ All applicable aspects of agricultural chemical use,
- ✓ Stipulations preventing or minimizing the presence of agricultural chemicals in the ground water, and
- ✓ Provisions to protect the present and future beneficial use of ground water.

Additional information and provisions will be considered for incorporation into the SMP when necessary to achieve the requirements of 80-15-214(2), Montana Code Annotated.

Involvement of Affected People or Groups

SMPs may identify individuals or groups who are or need to be involved in carrying out the provisions of the plan. These persons will be notified that a SMP will be developed for the use of agricultural chemicals in specified areas. A specific management plan may be written to cover an area as small as a farm unit or it can cover the entire state. What is more likely to happen is that a SMP will address the use of a specific pesticide on a specific agricultural crop. The BMPs, application rates, setback areas around wells, and other management practices that are identified in a SMP are enforceable.

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The programs of the Montana Extension Service are available to all people regardless of race, creed, color, sex or national origin.

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